



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Daniel R. Tretter et al. Examiner: Chante E. Harrison  
Serial No.: 10/672,544 Group Art Unit: 2672  
Filed: September 26, 2003 Docket No.: 200312433-1 (H304.120.101)  
**Due Date: October 22, 2005**  
Title: GENERATING AND DISPLAYING SPATIALLY OFFSET SUB-FRAMES

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**Mail Stop AF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

Please consider the following remarks during the Pre-Appeal Brief Conference:

Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tabata, U.S. Patent No. 6,384,816 ("Tabata").

Independent claim 1 is directed to a method of displaying images with a display device, and recites "displaying the sub-frames for each image frame in a second set of the plurality of image frames at a second plurality of spatially offset positions that is different than the first plurality of spatially offset positions."

Independent claim 8 is directed to a system for displaying images, and recites "an image processing unit configured to define . . . third and fourth sub-frames corresponding to the second image" and "a display device adapted to . . . alternately display the third sub-frame in a third position spatially offset from the first position and the second position, and the fourth sub-frame in a fourth position spatially offset from the first position, the second position, and the third position."

Independent claim 12 is directed to a system for displaying low resolution sub-frames at spatially offset positions to generate the appearance of a high resolution image, and recites "means for receiving a set of consecutive high resolution images" and "means for automatically varying the set of spatially offset positions for at least one of the high resolution images".

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Independent claim 19 is directed to a computer-readable medium having computer-executable instructions for performing a method of displaying low resolution sub-frames at spatially offset positions to generate the appearance of a high resolution image, and recites “receiving a set of consecutive high resolution images” and “automatically varying the plurality of spatially offset positions for at least one of the high resolution images”.

The Examiner has acknowledged with respect to independent claim 1 that “Tabata fails to specifically disclose displaying the sub-frames for each image frame in a second set of the plurality of image frames at a second plurality of spatially offset positions that is different than the first plurality of spatially offset positions.” (Final Office Action at para. no. 2, page 3). The Examiner has acknowledged with respect to independent claim 8 that “Tabata fails to specifically disclose third and fourth sub-frames corresponding to the second image.” (Final Office Action at para. no. 2, page 6).

One of the requirements of establishing a *prima facie* case of obviousness is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” MPEP § 2143. The Examiner has acknowledged that Tabata does not teach or suggest all of the limitations of claim 1 or claim 8. (Final Office Action at para. no. 2, page 3 and page 6). The Examiner has cited nothing in Tabata that teaches or suggests the above-quoted limitations of independent claims 1 and 8.

Even when obviousness is based on a single reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In the present case, the Examiner has not identified any suggestion or motivation to modify the Tabata reference in a manner that would produce the claimed invention. Rather, the Examiner has essentially just stated that it would be possible to modify Tabata in a manner that would produce the claimed invention (see, e.g., Final Office Action at para. no. 2, page 3), without identifying any teaching, suggestion, or motivation, to make such a modification.

Thus, by failing to identify a motivation to modify the Tabata reference, the Examiner has failed to provide an essential element required to establish a *prima facie* case of obviousness. In addition, the Examiner’s rejections are also based on numerous clear errors in fact. The Examiner has made numerous factually incorrect statements in the Final Office

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Action mailed June 22, 2005, and has improperly relied on these factually incorrect statements as a basis for the current rejections.

For example, with respect to independent claims 1 and 8, the Examiner stated that:

Tabata teaches one frame is represented by dividing image signals into four images (col. 1, ll. 25-27); and **a delta array display having multiple frames (Fig. 4)** where each frame has pixel positions transitioned in either a vertical and/or horizontal distance from the first standard pixel position (col. 2, ll. 30-44).

It would have been obvious to one of skill in the art to incorporate sub-frames of consecutive image frames displayed at different pluralities of spatially offset positions with the disclosure of Tabata because by vertically and/or horizontally positioning each sub-frame pixel based on the standard position of the first sub-frame pixel relative to the image frame **where each image frame occupies a different display position**, the position of each transitioned sub-frame pixel will be spatially offset from the sub-frame pixels of consecutive image frames. (Final Office Action at para. no. 2, page 3; and para. no. 2, pages 6-7) (emphasis added).

Applicant respectfully submits that the Examiner's statement that Figure 4 shows "a delta array display having multiple frames" is factually incorrect, and is not supported by any disclosure in Tabata. The Examiner's conclusions based on this false premise, such as the conclusion that "each image frame in Tabata occupies a different display position", are also factually incorrect, and are not supported by any disclosure in Tabata. There is no teaching or suggestion in Tabata regarding a delta array display having multiple frames, and there is no teaching or suggestion in Tabata regarding each frame occupying a different display position.

In the Response to Arguments section of the Final Office Action, the Examiner made similar comments to those addressed above. Specifically, the Examiner stated that "Tabata teaches a delta array displays image frames, which each consists of four divided image signals, e.g. sub-frames (col. 1, ll. 24-30; Fig. 2). Thus, **Fig. 2 is representative of a display of multiple image frames** each consisting of 4 subframes." (Final Office Action at para. no. 3, page 12) (emphasis added). First, Figure 2 illustrates a rectangular array rather than the delta array referred to by the Examiner. Second, like Figure 4, Figure 2 also shows a single frame with four fields. (See, e.g., Tabata at col. 1, lines 24-35 and 46-57; col. 4, lines 48-57; col. 8, lines 3-23). Applicant respectfully submits that the Examiner's statement that "Fig. 2

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is representative of a display of multiple image frames” is factually incorrect, and is not supported by any disclosure in Tabata.

Since Tabata does not teach or suggest each and every limitation of independent claim 1 or independent claim 8, and the Examiner has failed to identify any motivation to modify the Tabata reference in a manner that would produce the claimed invention, the Examiner has failed to establish a *prima facie* case of obviousness of claims 1 and 8.

Independent claim 12 includes the limitations “means for receiving a set of consecutive high resolution images” and “means for automatically varying the set of spatially offset positions for at least one of the high resolution images”. Independent claim 19 includes the limitations “receiving a set of consecutive high resolution images” and “automatically varying the plurality of spatially offset positions for at least one of the high resolution images”. The Examiner indicated, with no explanation, that these limitations are somehow taught or suggested by Tabata at col. 2, ll. 25-33, and Figs. 9 and 10. (Final Office Action at para. no. 2, pages 9 and 11). These portions of Tabata that were cited by the Examiner indicate that the same set of four positions are used for consecutive frames, and do not teach or suggest automatically varying spatially offset positions for at least one high resolution image in a set of consecutive high resolution images. For the reasons set forth above with respect to independent claims 1 and 8, Tabata also does not teach or suggest the limitations of independent claims 12 and 19 quoted above. Since Tabata does not teach or suggest each and every limitation of independent claim 12 or independent claim 19, and the Examiner has failed to identify any motivation to modify the Tabata reference in a manner that would produce the claimed invention, the Examiner has failed to establish a *prima facie* case of obviousness of claims 12 and 19.

In view of the above, independent claims 1, 8, 12, and 19 are each patentably distinct from the Tabata reference and, therefore, are each in a condition for allowance. All claims depending from independent claims 1, 8, 12, and 19 are also in a condition for allowance. Applicant, therefore, respectfully requests that the rejection of claims 1-20 under 35 U.S.C. §103(a) be reconsidered and withdrawn, and that claims 1-20 be allowed.

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**CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 1-20 are in form for allowance and are not taught or suggested by the cited reference. Therefore, reconsideration and withdrawal of the rejections, and allowance of claims 1-20 is respectfully requested.

Any inquiry regarding this Request should be directed to either Susan E. Heminger at Telephone No. (650) 236-2738, Facsimile No. (650) 852-8063 or Jeff A. Holmen at Telephone No. (612) 573-0178, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

Daniel R. Tretter et al.,

By their attorneys,

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**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 18<sup>th</sup> day of October, 2005.

By: Jeff A. Holmen  
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